

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-5. (Canceled)

6. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed ~~[[on]]~~ over said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of the source and drain regions of the thin film transistor through said electrode;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, and

wherein said pixel electrode is transparent.

7. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, and

wherein said pixel electrode is transparent.

8. (Canceled)

9. (Currently Amended) An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed ~~[[on]]~~ over said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor and said electrode;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, [[and]]

wherein said second contact hole does not overlap said first contact hole, and wherein said pixel electrode is transparent.

10.-18. (Canceled)

19. (Currently Amended) The electro-optical display device according to any one of claims ~~2, 4, 6, 7, 8 and 9~~ 6, 7 and 9, further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate

20. (Canceled)

21. (Currently Amended) The electro-optical device according to any one of claims ~~2, 4, 6, 7, 8 and 9~~ 6, 7 and 9, wherein said leveling film comprises polyimide.

22.-23. (Canceled)

24. (Withdrawn) The electro-optical device according to any one of claims 2, 4, 6, 7, 8 and 9 wherein said channel region comprises crystalline silicon.

25. (Withdrawn) The electro-optical device according to any one of claims 2, 4, 6, 7, 8 and 9 wherein said gate insulating film comprises silicon oxide.

26. (Withdrawn) A television set comprising:  
an active matrix type display device; and;  
a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:  
a first substrate having an insulating surface;  
at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;  
a leveling film comprising an organic resin formed over said at least one thin film transistor;  
a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;  
wherein said gate insulating film contains fluorine.

27. (Withdrawn) A television set comprising:  
an active matrix type display device; and;  
a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:  
a first substrate having an insulating surface;  
at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;  
an interlayer insulating film formed over said thin film transistor;  
an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode; wherein said gate insulating film contains fluorine.

28. (Withdrawn) A television set comprising:

an active matrix type display device; and;

a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of the source and drain regions of the thin film transistor through said electrode; wherein said gate insulating film contains fluorine.

29. (Withdrawn) A television set comprising:

an active matrix type display device; and;

a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

wherein said gate insulating film contains fluorine.

30. (Withdrawn) A television set comprising:

an active matrix type display device; and;

a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor and said electrode;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode

wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine, and said second contact hole does not overlap said first contact hole.

31. (Withdrawn) A television set comprising:

an active matrix type display device; and;

a tuner operationally connected to the active matrix type liquid crystal display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor and said electrode;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine, and said second contact hole does not overlap said first contact hole.

32. (Withdrawn) The television set according to any one of claims 26-31 wherein said pixel electrode is transparent.

33. (Withdrawn) The television set according to any one of claims 26-31 further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

34. (Withdrawn) The television set according to any one of claims 26-31 wherein said leveling film comprises polyimide.

35. (Withdrawn) The television set according to any one of claims 26-31 wherein said channel region comprises crystalline silicon.

36. (Withdrawn) The television set according to any one of claims 26-31 wherein said gate insulating film comprises silicon oxide.

37.-38. (Canceled)

39. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;



an electrode formed ~~[[on]]~~ over said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of the source and drain regions of the thin film transistor through said electrode;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, and

wherein said pixel electrode is transparent.

40. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, and

wherein said pixel electrode is transparent.

41. (Canceled)

42. (Currently Amended) A camera having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a semiconductor film including a channel region, and source and drain regions with said channel region extending therebetween, a gate insulating film ~~over said channel region~~ covering the semiconductor film, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

a leveling film comprising an organic resin formed over said ~~at least one~~ thin film transistor and said electrode;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine and is in contact with a top surface and side surfaces of the semiconductor film, ~~[[and]]~~

wherein said second contact hole does not overlap said first contact hole, and wherein said pixel electrode is transparent.

43. (Canceled)

44. (Currently Amended) The camera according to any one of claims [[37-42]] 39, 40 and 42 further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

45. (Currently Amended) The camera according to any one of claims [[37-42]] 39, 40 and 42 wherein said leveling film comprises polyimide.

46. (Currently Amended) The camera according to any one of claims [[37-42]] 39, 40 and 42 wherein said channel region comprises crystalline silicon.

47. (Currently Amended) The camera according to any one of claims [[37-42]] 39, 40 and 42 wherein said gate insulating film comprises silicon oxide.

48. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

- a first substrate having an insulating surface;

- at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

- a leveling film comprising an organic resin formed over said at least one thin film transistor;

- a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

- wherein said gate insulating film contains fluorine.

49. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

- a first substrate having an insulating surface;

- at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel

region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode;

wherein said gate insulating film contains fluorine.

50. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to said one of the source and drain regions of the thin film transistor through said electrode;

wherein said gate insulating film contains fluorine.

51. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

- a first substrate having an insulating surface;

- at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

- a leveling film comprising an organic resin formed over said at least one thin film transistor;

- a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

- wherein said gate insulating film contains fluorine.

52. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

- a first substrate having an insulating surface;

- at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

- an interlayer insulating film formed over said thin film transistor;

- an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

- a leveling film comprising an organic resin formed over said at least one thin film transistor and said electrode;

- a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode

wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine, and said second contact hole does not overlap said first contact hole.

53. (Withdrawn) A computer having an active matrix type display device, said active matrix type display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film over said channel region, and a gate electrode over said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions through a first contact hole of said interlayer insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor and said electrode;

a pixel electrode formed over said leveling film and electrically connected to said one of said source and drain regions of the thin film transistor through said electrode wherein said pixel electrode contacts said electrode through a second contact hole of said leveling film;

wherein said gate insulating film contains fluorine, and said second contact hole does not overlap said first contact hole.

54. (Withdrawn) The computer according to any one of claims 48-53 wherein said pixel electrode is transparent.

55. (Withdrawn) The computer according to any one of claims 48-53 further comprising a liquid crystal and a second substrate wherein said liquid crystal is disposed between said first substrate and said second substrate.

56. (Withdrawn) The computer according to any one of claims 48-53 wherein said leveling film comprises polyimide.

57. (Withdrawn) The computer according to any one of claims 48-53 wherein said channel region comprises crystalline silicon.

58. (Withdrawn) The computer according to any one of claims 48-53 wherein said gate insulating film comprises silicon oxide.